

# Invasives in Maine Agriculture

Kathy Murray

Maine Department of Agriculture,  
Conservation and Forestry



# Spotted-wing Drosophila

## *Drosophila suzukii*

Photo: Martin Hauser, CA Dept Food and Agric



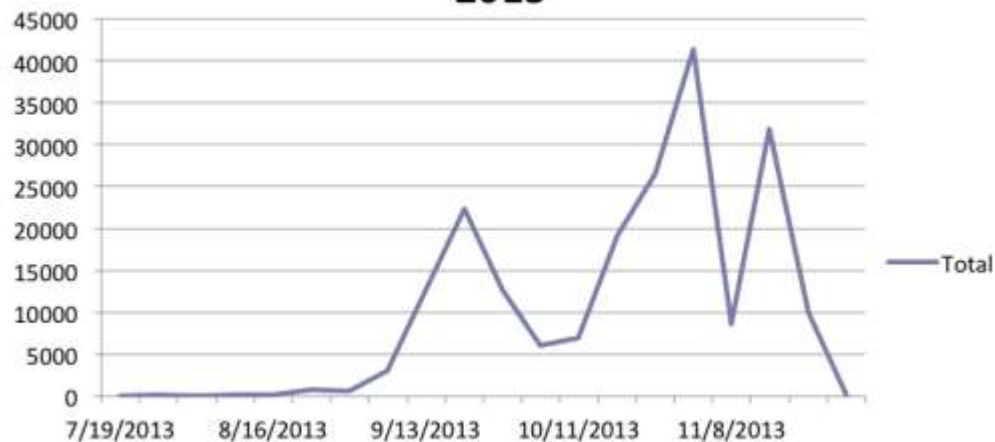
- Pest of raspberries, blueberries, late strawberries
- Eastern region crop loss > \$27 M/yr



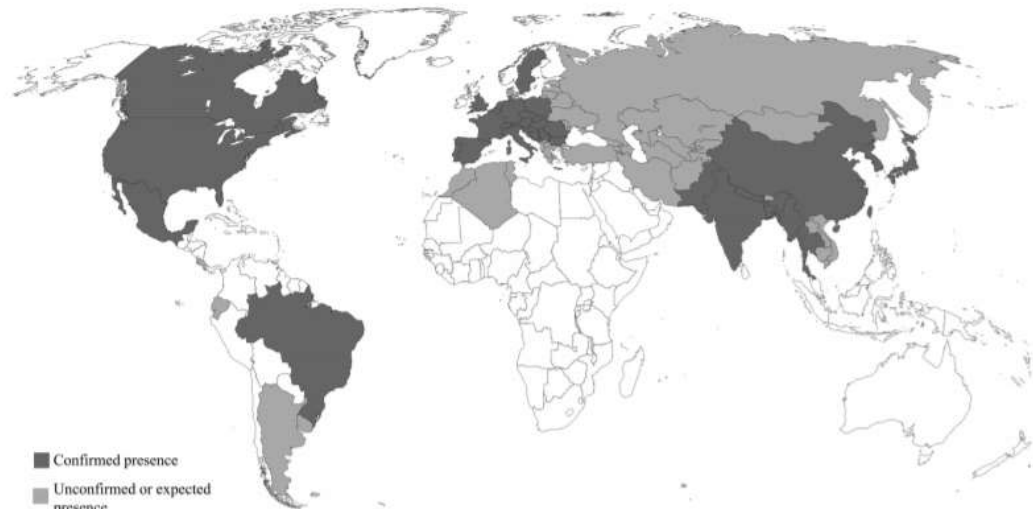
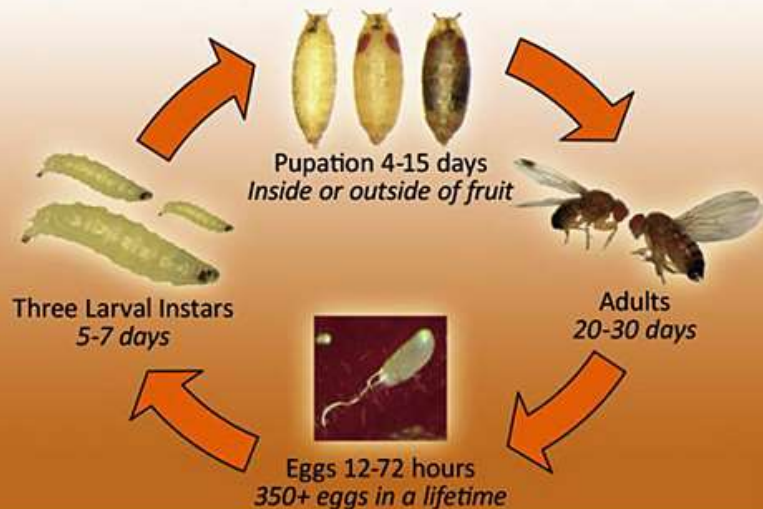
# Spotted Wing Drosophila

- Rapid population increase- multiple generations/yr
- Wide host range
- Wide distribution
- Overwinters between stones, under leaves, in buildings
- Large economic impact

Spotted Wing Drosophila Trap Captures  
2013



Life Cycle of the Spotted Wing Drosophila  
*Drosophila suzukii* (Matsumura)





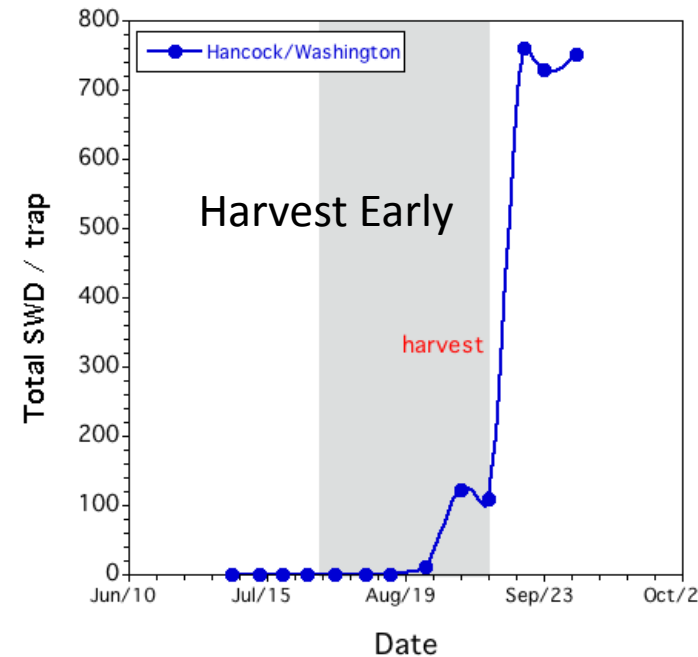
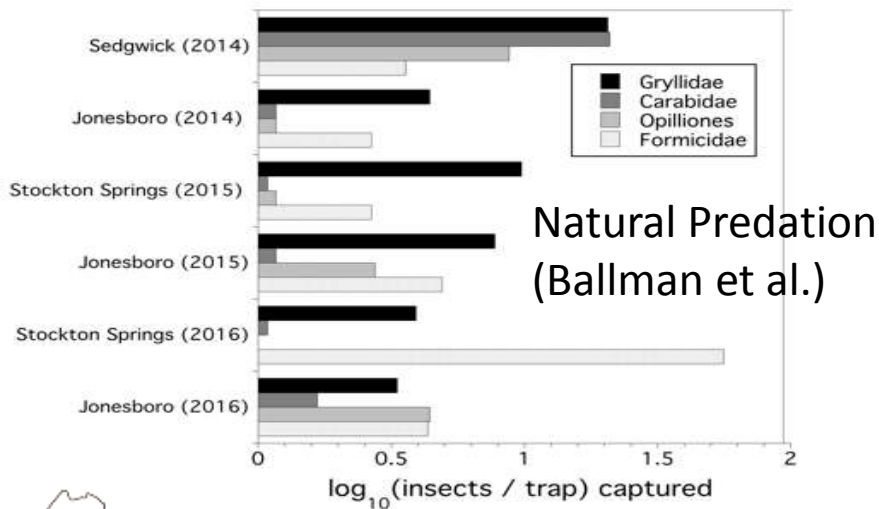
# Managing SWD

Exclusion Netting (Alnajjar et al. 2017)



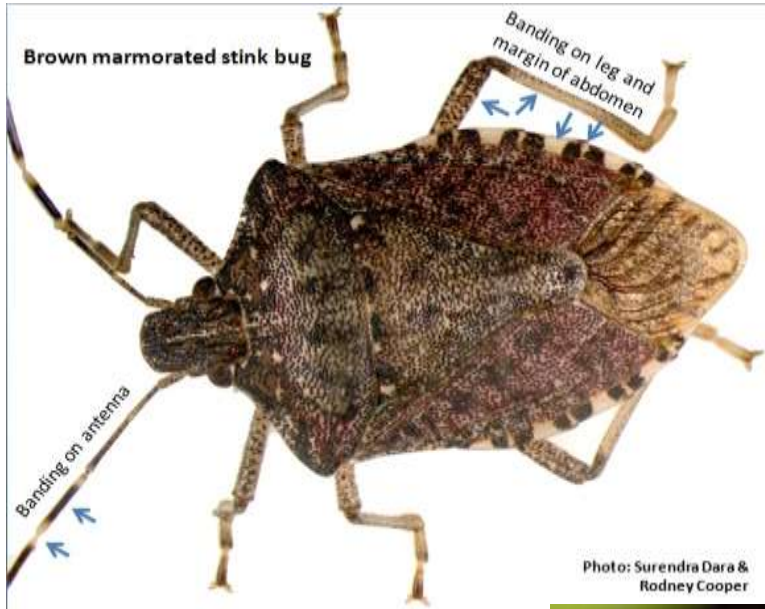
Monitoring Trap

David Handley



# Brown Marmorated Stink Bug

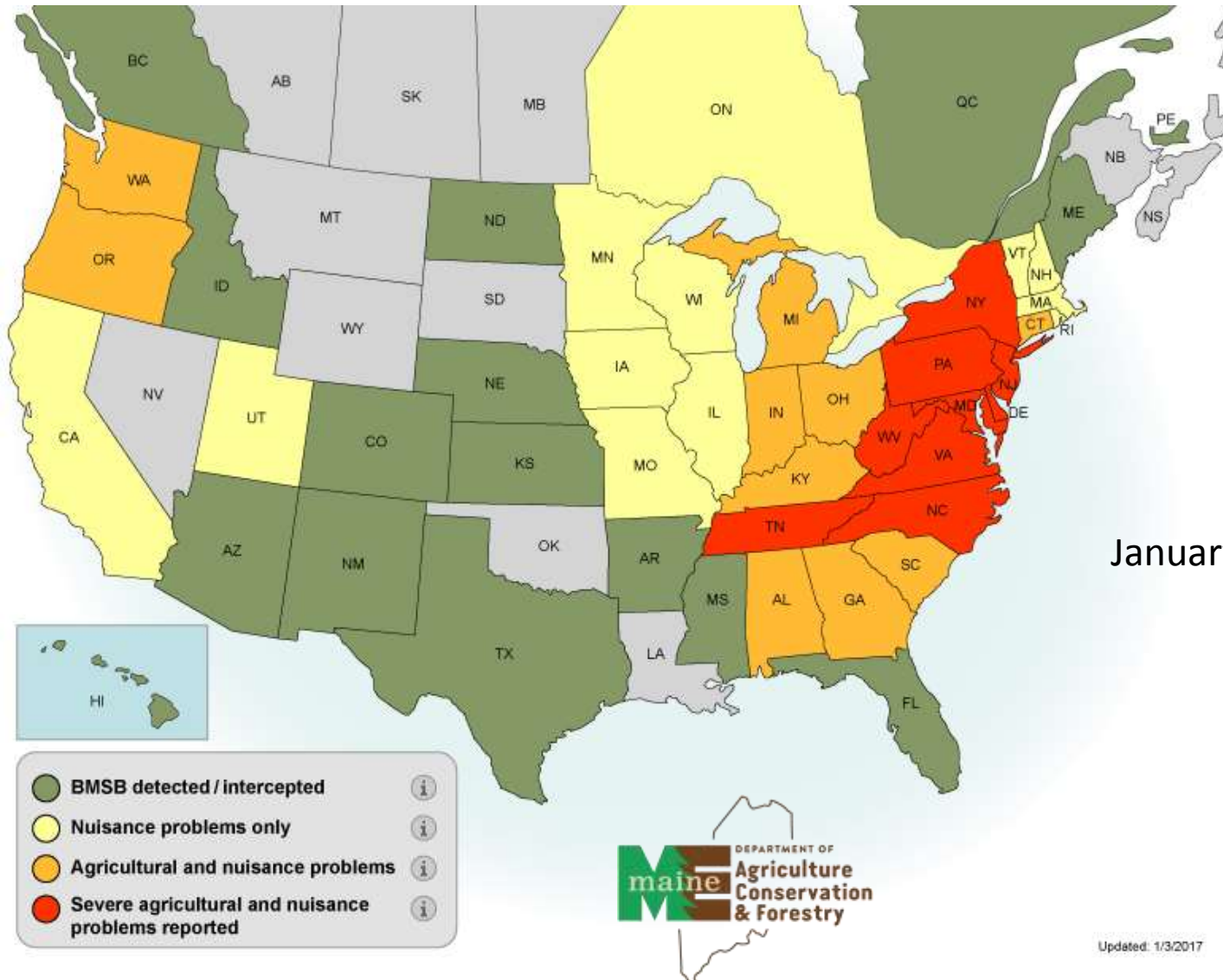
*Halyomorpha halys*



- Native to Asia
- Fruit/veg pest
- Nuisance pest in buildings



# Brown Marmorated Stink Bug





# Brown Marmorated Stink Bug

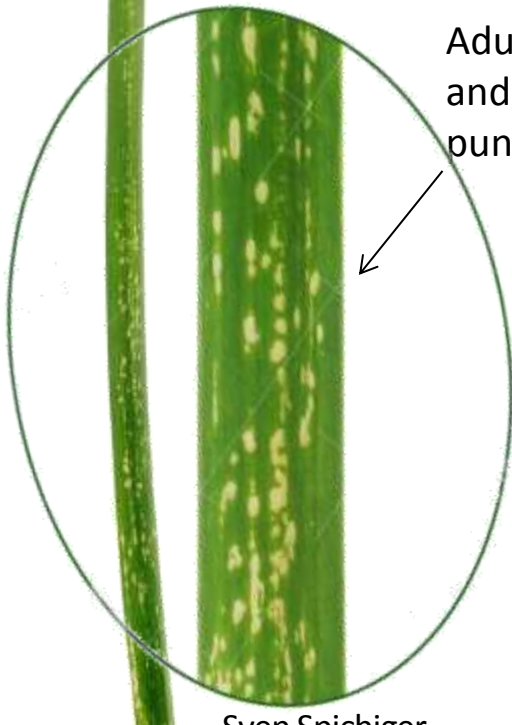
- Detections in trailers and homes in ME
  - Invades structures in fall.
  - Transported on vehicles, trailers, containers



# Allium Leafminer

*Phytomyza gymnostoma*

- Alliums: leeks, onions, chives, garlic
- Native to Germany. Economic pest in Europe.
- Found in PA (2015), NJ



Adult egg-laying  
and feeding  
punctures



Sven Spichiger



# Allium Leafminer



**Curled and  
distorted leaves**

(photo by Garden  
Focused.co.uk)

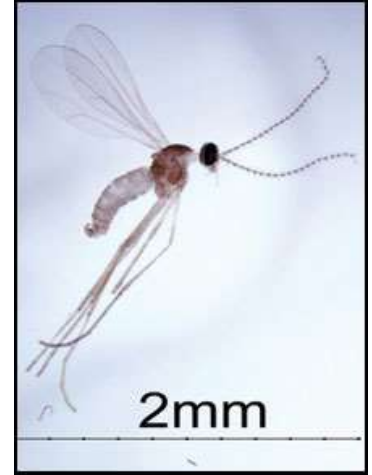


**Pupae in garlic** (photo by Syston Allotment Society Newsletter)

# Swede Midge

*Contarinia nasturtii*

- Found in 7 states and 6 CA provinces (including NY, VT, MA, Quebec)
- Deformed, unmarketable crucifer crops (broccoli, cabbage, cauliflower)



S. Ellis, USDA APHIS PPQ





# Daylily Leafminer

*Ophiomyia kwansonis*

- Daylilies
- Found from TX to NY. Unconfirmed report in ME



Charley Eiseman



Steven Frank

# Spotted Lanternfly

*Lycorma delicatula*—native to Asia

- Found in PA 2014
- Feeds on 40 species of trees and ornamentals such as grapes, peaches, apples, dogwood, maples, walnut, oak, and pines
- PA banned transport of firewood, outdoor lawn equipment, trucks, RVs from infested locations



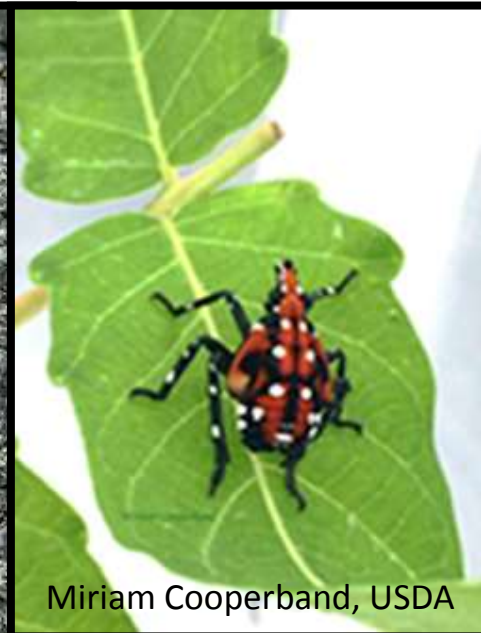
Greg Hoover



Lawrence Barringer



Lawrence Barringer



Miriam Cooperband, USDA



# Dickeya spp.

- Bacterial pathogens of potato.
- ‘Blackleg’ symptoms expressed under warm ( $> 77^{\circ}\text{F}$ ), wet conditions.
- Spread via tubers—impact on seed potato industry
- *D. dianthicola* widespread. *D. solani* not yet found in N. A.



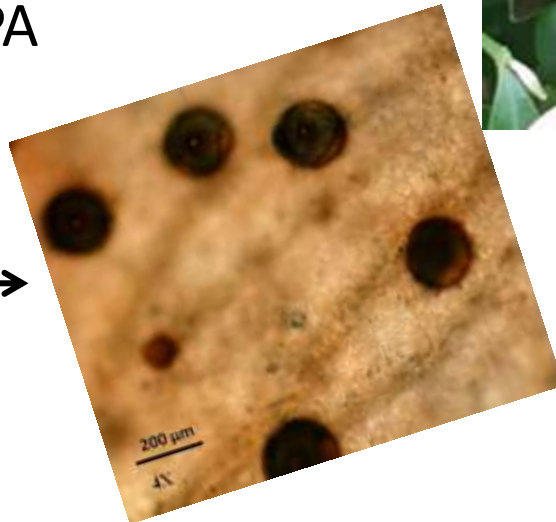
# Boxwood Blight

*Calonectria*  
*pseudonaviculata* and  
*C. henricotiae*

- Fungal pathogen
- Spreads readily from nursery plants to susceptible hosts in landscape
- Regulated in PA



*Microsclerotia* →  
*survive years in soil*  
*and plant debris*





# Mile-a-Minute Vine

*Persicaria perfoliata*

- Herbaceous annual climbing vine
- Colonizes open and disturbed areas
- Seeds dispersed by wildlife, water, equipment, nursery stock
- Found VA to MA



Leslie J. Mehrhoff

UGA5273095

# Thanks!

- Contributors

- Ellie Groden, Frank Drummond Lab, David Handley, Glen Koehler (UMaine)
- Sarah Scally, Carole Neil, Karen Coluzzi, Gary Fish, Ann Gibbs (ME Dept Agriculture, Conservation and Forestry)

